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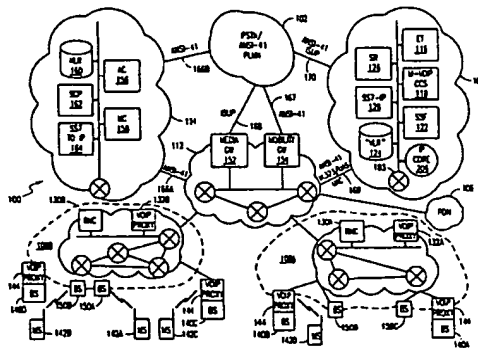
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- (74) Agent: ERICSSON RADIO SYSTEMS AB; Patent Unit Radio Access, S-164 80 Stockholm (SE).
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: TELECOMMUNICATIONS NETWORK INTEGRATING CELLULAR, PACKET-SWITCHED, AND VOICE-OVER-IP INFRASTRUCTURES



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(57) Abstract: A telecommunications network (100) that integrates infrastructures from the Plain Old Cellular System (POCS)(998), Packet-Switched Networks (PSN), and Voice-over-IP (VoIP) networks (999) such as those based on the H.323 protocol or the Session Initiation Protocol (SIP). The integrated network (100) supports VoIP mobile terminals as well as legacy mobile terminals operating through VoIP proxies (132 and 144) which act as clients to make legacy mobile terminals appear as IP terminals to VoIP servers in the network. The VoIP proxies may be implemented in the base station (140), in an intermediate Radio Access Network (RAN)(130), or in the terminal itself (142) (making the terminal a VoIP terminal) in which case no proxy is needed in the network. The proxies and VoIP terminals support both the native POCS and the native VoIP signaling and functionality. A Mobile VoIP Call Control Server (MVoIPCCS) (118) fuses native POCS call-service functions, Wireless Intelligent Network (WIN) service functions, and native PSN/VoIP session/call control functions to create a super-set of session/call control functions. Integrated mobility handling functionality is provided by a generalized Visitor Location Register (VLR)(124) that fuses legacy POCS ANSI-41 VLR functions, SIP location server functions, and H.323 location management functions. POCS authentication functions are integrated with PSN/VoIP security functions. Teleservices and resource management functions are also integrated.

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

C. DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim No.
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A	US 5 793 762 A (PENNERS JOHN HENRY HUBERT ET AL) 11 August 1998 (1998-08-11) abstract; figure 1	1-38
E	--- WO 01 31939 A (ERICSSON TELEFON AB L M) 3 May 2001 (2001-05-03) abstract; figure 1	1-38
P,A	--- WO 00 33523 A (ERICSSON TELEFON AB L M) 8 June 2000 (2000-06-08) abstract	1-38
P,A	--- WO 00 33518 A (ERICSSON TELEFON AB L M) 8 June 2000 (2000-06-08) abstract; figure 1	1-38

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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8 document member of the same patent family

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INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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P,A	WO 00 19750 A (ERICSSON INC) 6 April 2000 (2000-04-06) abstract; figures 4-6 ---	1-38
P,A	HERMAN C H RAO ET AL: "iGSM: VoIP service for mobile networks" IEEE COMMUNICATIONS MAGAZINE, vol. 38, no. 4, April 2000 (2000-04), pages 62-69, XP002901966 conclusions figure 3 -----	1-38

INTERNATIONAL SEARCH REPORT

Information on patent family members

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